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## REMARKS

Claims 1-13 are pending in this application. Claims 12 and 13 are withdrawn as being directed to an unelected invention. Claim 7 is objected to for informality in the wording of the claim. Claim 6 is rejected under 35 USC 112, second paragraph, for lack of antecedent basis. Claim 1 is rejected under 35 USC 102 as being anticipated by Strangeman, and also Qadri, and also Subramanian. Claims 1-4, 6-8 and 11 are rejected under 35 USC 102 as being anticipated by Murphy. Claims 1-8 are rejected under 35 USC 102 as being anticipated by Rigney. Claims 6 and 7 are rejected under 35 USC 102 as being anticipated by Subramanian. Claims 9 and 10 are rejected under 35 USC 102 as being anticipated, or in the alternative, under 35 USC 103 as being unpatentable over Murphy. Claim 5 is rejected under 35 USC 103 as being unpatentable over Murphy.

The Applicants hereby affirm the election of the invention of Group I. Withdrawn claims 12 and 13 are cancelled herein.

The informality of claim 7 and the lack of antecedent basis of claim 6 are corrected herein.

The Applicants appreciate the thorough search and examination performed by the Examiner for this invention. Responsive to the newly cited prior art identified by the Examiner, the Applicants have cancelled independent claim 1, and have placed dependent claims 2, 6, 8 and 9 into independent form by including all of the limitations of claim 1 into those claims. Authorization for payment of the required fees for the extra independent claims is provided in the concurrently filed Fee Transmittal Form PTO/SB/17. The Applicants traverse the various prior art rejections of claims other than claim 1 as described below.

The Examiner has relied upon the prior art patents issued to Murphy, Rigney and Subramanian to support the various claim rejections under 35 USC 102 and 103. However, in each case, the Examiner admits that the prior art reference does not expressly disclose at least one limitation of the respective claim. Because the materials and processes described in Murphy, Rigney and Subramanian are similar to

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those of the present invention, the Examiner asserts that each of the pending claims is inherently present in the prior art.

The Applicants first traverse the prior art rejections because the features missing from the explicit teaching of the prior art patents are not necessarily present in the materials described by those prior art patents.

To serve as an anticipation when the reference is silent about the asserted inherent characteristic, such gap in the reference may be filled with recourse to extrinsic evidence. Such evidence must make clear that the missing descriptive matter is necessarily present in the thing described in the reference and that it would be so recognized by persons of ordinary skill. (Continental Can Co. USA v. Monsanto Co., 20 USPQ 2d at 1749.)

The CCPA has added that inherency may not be established by probabilities or possibilities. The mere fact that a certain thing *may* result from a given set of circumstances is not sufficient. (*In re Oelrich*, 212 USPQ 323 at 326.) Thus, to be inherent, the missing element must **exist every time, all the time**, in the prior art. This is clearly not the situation with regard to the various nano features missing from the prior, since such features may be created only with special processing parameters, as described in the present specification at page 3, lines 16-19 and page 4, lines 5-7 and lines 26-29.

The Applicants further traverse the prior art rejections because the cited prior art fails to enable the claimed invention. An anticipatory reference must sufficiently describe the claimed invention to have placed the public in possession of it. (see *Paperless Accounting, Inc. v. Bay Area Rapid Transit Systems*, 231 USPQ 649.) Because the cited prior art patents do not teach or suggest the importance of the claimed nano sized features, they are insufficient under 35 USC 102 to place the public in possession of the present invention.

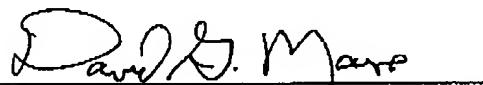
Finally, the Examiner acknowledges that the Applicants may present an objective evidentiary showing in rebuttal of the Examiner's assertion of inherent anticipation. Such evidence is presented in the form of the concurrently filed Declaration of Brij B. Seth under 37 CFR 1.132. Dr. Seth is an expert in the field of the invention, and his Declaration refutes the assertion by the Examiner that the prior

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art patents to Murphy, Rigney and Subramanian inherently present the claim limitations that are missing from the express teaching of those patents. Thus, the cited prior art is shown not to support the rejections of the as-amended claims, and the application is now believed to be in condition for allowance.

Reconsideration of claims 2-11 of the amended application in light of the above Remarks and the concurrently filed Declaration under 37 CFR 1.132 is respectfully requested.

Respectfully submitted,



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